

M9 Minimal Broth



Medium used for cultivation and enumeration of *E.coli* for molecular biology purpose.

• CONTENTS (Liter)

Disodium Phosphate	6.0 g
Monopotassium Phosphate	3.0 g
Sodium Chloride	0.5 g
Ammonium Chloride	1.0 g
Final pH = 7.0 ± 0.2 at 25°C	

• PROCEDURE

Suspend 10.5 G of powder in 1 L of distilled or deionized water. Heat to boiling until completely dissolved. Sterilize by autoclave at 121°C for 15 minutes. Cool to 45-50°C in water bath. Aseptically add 2 vials of M9 Minimal Broth supplement(MB-M0732). Mix well. Dispense in tubes.

M9 Minial Broth supplement

1 vial content (each vial is sufficient for 500mL of medium)

Glucose	2.0 g
Thiamine Hydrochloride	0.0005 g
Magnesium Sulfate	0.123 g
Calcium Chloride	0.00735 g

• INTERPRETATION

M9 Minimal Broth is a medium used for cultivation and enumeration of *E.coli* cell growth, plasmid DNA, and protein production. Phosphates are buffering agents. Sodium chloride maintains osmotic balance. Ammonium chloride provides nitrogen. Glucose is added as a source of carbohydrate. Thiamine hydrochloride, magnesium sulfate and calcium chloride are added as nutrients.

• TECHNIC

Inoculate the specimen with stab using a sterile needle to the medium. Shake gently for spreading microorganism. Incubate at 36 ± 1°C for 18 - 48 hours. Refer appropriate references for recommended test procedure.

• QUALITY CONTROL FOR USE

Dehydrated medium

Appearance: free-flowing, homogeneous

Color: white

Prepared medium

Appearance: clear

Color: colorless

Incubation conditions: 36 ± 1°C / 18 - 48 hours

Microorganism	ATCC	Inoculum CFU	Growth
<i>Escherichia coli</i>	25922	50-100	good

• STORE

The powder is very hygroscopic. Store the powder at room temperature, in a dry environment, in its original container tightly closed and use it before the expiry date on the label or until signs of deterioration or contamination are evident. Store prepared medium at 2-8°C.

• REFERENCES

1. European Pharmacopoeia (EP) 3rd Edition. Supplement 4.6, 2004.
2. APHA (1985) –Standard Methods for the Examination of Water and Wastewater 16th edition.
3. Reasoner and Geldreich. 1985. Appl. Environ. Microbiol. 49:1.
4. Fiksdal, Vik, Mills and Staley. 1982. J. Am. Water Works Assoc. 74:313.
5. Kelly, Justice and Nagy. 1983. Abstr. Q122, p. 280. Abstr. 83rd Annu. Meet. Am. Soc. Microbiol. 1983.
6. Eaton, Rice and Baird (ed.). 2005. Standard methods for the examination of water and wastewater, 21st ed., online. American Public Health Association, Washington, D.C.
7. Kim and Feng. 2001. In Downes and Ito (ed.), Compendium of methods for the microbiological examination of foods, 4th ed. American Public Health Association, Washington, D.C.
8. Van Soestberger and Lee. 1969. Appl. Microbiol. 18:1092

• PACKAGE

Cat. No : MB-M1191 M9 Minimal Broth	500 G
----------------------------------------	-------